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VACUUM SPLINT DEVICE

Claims

1. A device for supporting an injured limb or body part comprising:
10 a sleeve having a first side, a second side for contacting the limb or body part, and
at least one strap holder;
at least one strap having a body, a first end and a second end, wherein the at least
one strap is inserted through the at least one strap holder;
a first retaining means for removably retaining the first end relative to the sleeve;
15 and
a second retaining means for removably securing the second end relative to the
sleeve to secure the straps around the sleeve.
2. The device of claim 1 wherein the second side of the sleeve is made of a
20 textured material so as to allow at least some air to reach the surface of the limb.
3. The device of claim 2 wherein the textured material is an embossed
material.
- 25 4. The device of claim 1 wherein the strap is substantially T-shaped.

5. The device of claim 4 wherein the at least one strap holder comprises a hole having a hole width and the T-shaped strap comprises a body and an end, wherein the body of the T-shaped strap has a width that is less than the hole width and the end has a width that is larger than the hole width so that the strap may be inserted through the hole and be retained in place by the end of the T-shaped strap.

6. The device of claim 5 wherein the T-shaped strap may be folded over and removably attached to the body of the strap.

7. The device of claim 1 which further includes means to inflate or exhaust air from the device.

8. The device of claim 7 wherein the sleeve further comprises a plurality of particles.

9. The device of claim 8 wherein the sleeve further comprises a bag for retaining the plurality of particles.

10. The device of claim 8 which further includes means to maintain the particles within the sleeve.

11. The device of claim 9 wherein the means to maintain the particles within the sleeve comprises a filter associated with the means to inflate or exhaust air.

12. The device of claim 7 wherein the means to inflate or exhaust air comprises a tube and a clamp for pinching a part of the tube to prohibit air flow.

5 13. The device of claim 1 wherein the means to secure the straps around the sleeve comprise hook and loop fasteners located on the straps.

14. The device of claim 1 wherein the means to secure the straps around the sleeve comprise snap fasteners.

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15. The device of claim 1 wherein the means to secure the straps around the sleeve comprise at least one hook associated with the second retaining means or the strap body and a series of holes associated with the other of the second retaining means or the strap body for mating with the hook.

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16. The device of claim 1 which further includes means to secure the retaining end relative to the sleeve.

17. The device of claim 16 wherein the means to secure the retaining end
20 comprises hook and loop fasteners.

18. The device of claim 17 wherein one portion of the hook and loop fasteners is located proximal the second end of the strap and the other portion of the hook and loop fasteners is located on an opposite portion of the strap.

5 19. The device of claim 16 wherein the means to secure the retaining end comprises snap fasteners.

20. The device of claim 16 wherein the means to secure the retaining end comprises hooks for mating with one of a plurality of holes.

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21. The device of claim 1 wherein the at least one strap is removable.

22. The device of claim 1 wherein the at least one strap holders comprises a plurality of holes.

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23. The device of claim 22 wherein the plurality of holes are arranged in pairs about the periphery of the sleeve.

24. A device for supporting an injured limb or body part comprising:
20 a sleeve for supporting the injured limb or body part, the sleeve having a chamber for retaining a plurality of particles, wherein the sleeve is capable of having substantially all of the air within the sleeve evacuated;
means to regulate air into and out of the sleeve; and

a filter to maintain the plurality of particles inside the sleeve.

25. The device of claim 24 wherein the means to regulate air into and out of the device comprises a tube having one end located inside the sleeve, another end located
5 outside the sleeve, and a clamp for pinching part of the tube to maintain the sleeve in the evacuated condition.

26. The device of claim 25 wherein the filter comprises a mesh sheet attached to the end of the tube located inside the sleeve.

10 27. The device of claim 26 wherein the tube further comprises a bushing for retaining the mesh sheet over the end of the tube.

28. The device of claim 25 wherein the tube further comprises a bushing for
15 maintaining the clamp on the tube.

29. The device of claim 28 wherein the tube further comprises an adaptor that may be placed over the bushing to permit the sleeve to be manually or mechanically inflated.

20 30. A device for supporting an injured limb or body part comprising:
a sleeve having a first side, a second side for contacting the limb or body part, and
a plurality of holes, each of the plurality of holes having a width; and

at least one strap having a body, a retaining end and means to secure the straps around the sleeve, the body of the strap having a width that is less than the width of the holes and the retaining end having a width that is greater than the width of the holes, wherein each of the at least one strap is inserted through at least one of the plurality of

5 holes and retained by the retaining end.